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THE BOXELDER BUG AND ITS CONTROL

Means of Identifying the Insect:

During the fall and spring months people are frequently annoyed by the occurrence of masses of brownish-black, slightly flattened insects about one-half inch long that gather about sheltered places around their homes and find their way inside. These insects are known as boxelder bugs (Leptocoris trivittatus Say) because they feed principally on boxelder trees (ashleaf maple) during the summer, sucking the juices from the leaves and seeds. The adults may be identified further by the occurrence of three longitudinal, narrow, red lines just back of the head on the upper side and the reddish margin on the basal half of the wings. The abdomen under the wings is bright red. The young bugs are dark colored anteriorly and the remainder of the body is bright red. In addition to boxelder, these bugs occasionally infest maple and ash trees; furthermore when extremely numerous they may feed to some extent on the developing fruit of fruit trees and on other plants. By fall the insects are full grown and begin to seek sheltered or warm places in which to spend the winter. During warm days they come out of hiding to sun themselves and then retreat again when it turns cold. In the spring they leave their places of hibernation as soon as mild weather returns and fly to the trees where they deposit their eggs, thus starting a new generation.

Control.

Boxelder bugs may be controlled by applying a chemical when found in any one of the following three locations: (1) on the foliage and trunk of the tree; (2) on walks and exterior portions of the building and on the inside of the building. Since most people are made aware of their presence only after they have invaded their homes, let us consider this situation first.

To remove the bugs from walls inside the building, apply one of the household sprays available on the market, particularly one containing pyrethrum. It will serve to paralyze the insects, temporarily at least, so that they can be brushed down, swept up and removed from the premise.

To control the bugs where they have gathered in clusters on exterior walls and walks, they can be killed by applying liberal applications of either kerosene, or better still, a 2 percent oil solution of chlordane or lindane. In situations where living plants occur near the walls or walks, use any one of the following chemicals in place of the oil solutions so as to avoid plant injury,--a 2-percent chlordane water-emulsion, a 5-percent chlordane or a 5-percent DDT dust.

Where remedial measures are to be taken during May and June while the young red nymphs or brown adults are still feeding on the seed pods and underside of the leaves of the tree, apply either a 2-percent chlordane or a 2-percent DDT water emulsion to the insects, thoroughly wetting them. In case these materials

are not available, use a pyrethrum spray at the strength recommended by the manufacturer for the control of other plant bugs. When they are present in large numbers, it is sometimes necessary to spray twice in May and once in June to control them. A 10-percent kerosene emulsion can be used late in the summer or early fall on the trunk and larger limbs to kill the bugs of various sizes observed wandering up and down the trees.

None of the above mentioned chemicals kill quickly. It usually requires at least an hour for them to become fully effective.

#### Preventive measures.

Since the boxelder bug becomes a nuisance primarily in localities where boxelder trees are grown it appears, therefore, that the elimination of these trees and their replacement with more suitable varieties, is one method of getting rid of the pest, if it is found impossible to control it by other means. Since the insect confines its feeding largely to the female or seed-bearing trees, retaining only the male or staminate ones, aids in reducing the numbers of the insect.

#### Precautions.

Chlordane, lindane, and DDT are poisonous materials but they can be handled safely if ordinary precautions are taken when applying them. In the case of spillage on skin, wash with soap and water. When applying sprays inside the building see that all foods are covered and avoid inhaling the mist. Use care when preparing the 10-percent kerosene emulsion by removing the soapy solution from the fire before adding the kerosene. It is made as follows: Dissolve 1/4 pound of laundry soap or soap flakes in 2 quarts of hot water, then churn into this solution, while hot, 1 gallon of kerosene by stirring vigorously. When a creamy emulsion is obtained, add 8 $\frac{1}{2}$  gallons of water. Keep this solution well mixed when applying the spray.







